

**In the Claims :**

The following listing reflects amendments to the claims and replaces all prior versions and listings of claims in this application.

1. (Currently amended) A polypeptide comprising one or more of: (a) an amino acid sequence selected from the group consisting of SEQ ID NOS: 51, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 54; (b) an amino acid sequence having at least 70% identity to a sequence as defined in (a); and/or (c) an amino acid sequence comprising a fragment of at least 8 consecutive amino acids of a sequence as defined in (a).

2. (Original) The polypeptide of claim 1, wherein the fragment of (c) does not include one or more of four domains of the sequence of (a).

3. (Original) The polypeptide of claim 1, wherein the fragment of (c) includes at least one complete domain of the sequence of (a).

4. (Currently amended) The polypeptide of ~~any preceding~~ claim 1, in oligomeric form.

5. (Currently amended) A polypeptide of the formula  $\text{NH}_2 \text{ A-}\{-\text{X-L-}\}_x\text{-B-COOH}$ , wherein: X comprises an amino acid sequence: (a) having at least 70% identity to one or more of SEQ ID NOS: 1-18, 51 ~~&~~ or 54; and/or (b) which is a fragment of at least 8 consecutive amino acids of one or more of SEQ ID NOS: 1-18, 51 or 54; L is an optional linker amino acid sequence; A is an optional N terminal amino acid sequence; B is an optional C terminal amino acid sequence; and x is 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or 20.

6. (Currently amended) A polypeptide comprising the amino acid sequence -A-W<sub>1</sub>-W<sub>2</sub>-W<sub>3</sub>-W<sub>4</sub>- B-, wherein:

A is an optional N-terminus sequence;

B is an optional C- terminus sequence;

W<sub>1</sub> is an optional amino acid sequence: (a) having at least 70% identity to the leader peptide of one or more of SEQ ID NOS: 1- 18 & or 51; and/or (b) which is a fragment of at least 8 consecutive amino acids of the leader peptide of one or more of SEQ ID NOS: 1-18 & or 51; W<sub>2</sub> is an optional amino acid sequence: (a) having at least 70% identity to the globular head of one or more of SEQ ID NOS: 1-18 & or 51; and/or (b) which is a fragment of at least 8 consecutive amino acids of the leader peptide of one or more of SEQ ID NOS: 1-18 & or 51; W<sub>3</sub> is an optional amino acid sequence: (a) having at least 70% identity to the coiled-coil domain of one or more of SEQ ID NOS: 1-18 & or 51; and/or (b) which is a fragment of at least 8 consecutive amino acids of the leader peptide of one or more of SEQ ID NOS: 1-18 & or 51; W<sub>4</sub> is an optional amino acid sequence: (a) having at least 70% identity to the transmembrane anchor region of one or more of SEQ ID NOS: 1-18 & or 51; and/or (b) which is a fragment of at least 8 consecutive amino acids of the leader peptide of one or more of SEQ ID NOS: 1-18 & or 51; provided that at least one of W<sub>1</sub>, W<sub>2</sub>, W<sub>3</sub> or W<sub>4</sub> is present.

7. An adhesin from *Haemophilus aegyptius*, wherein the adhesin comprises: (a) amino acid sequence SEQ ID NO: 52; (b) an amino acid sequence having at least 70% identity to SEQ ID NO: 52, and/or (c) an amino acid sequence which is a fragment of at least 8 consecutive amino acids of SEQ ID NO: 52.

8. (Currently amended) An antibody ~~Antibody~~ that ~~bind~~ binds to the polypeptide of claim 1.

9. (Currently amended) Nucleic acid encoding the polypeptide of claim 1 ~~or the antibody of claim 8.~~

10. (Currently amended) A pharmaceutical composition comprising a the polypeptide ~~and/or a nucleic acid and/or an antibody of any preceding claim 1.~~

11. (Cancelled)

12. (Cancelled)

13. (Currently amended) A method for raising an immune response in a mammal comprising the step of administering an effective amount of the composition of claim 10 to said mammal.

14. (New) Nucleic acid encoding the antibody of claim 8.

15. (New) A pharmaceutical composition comprising the antibody of claim 8.

16. (New) A pharmaceutical composition comprising the nucleic acid of claim 9.

17. (New) A pharmaceutical composition comprising the nucleic acid of claim 14.

18. (New) A pharmaceutical composition comprising the polypeptide of claim 5.

19. (New) A pharmaceutical composition comprising the polypeptide of claim 6.

20. (New) A pharmaceutical composition comprising the polypeptide of claim 7.

21. (New) A method for raising an immune response in a mammal comprising the step of administering an effective amount of the composition of claim 18 to said mammal.

22. (New) A method for raising an immune response in a mammal comprising the step of administering an effective amount of the composition of claim 19 to said mammal.

23. (New) A method for raising an immune response in a mammal comprising the step of administering an effective amount of the composition of claim 20 to said mammal.